

IN THE CLAIMS:

Claim 1 (Currently Amended): A method of driving a liquid crystal display panel using a 2-dot inversion system, the method comprising the steps of:

applying a gate start pulse to a gate driver, the gate driver applying gate signals to a plurality of gate lines;

sequentially pre-charging a plurality of pixel cells of the liquid crystal display panel along a the plurality of gate lines; and

sequentially charging the pixel cells with a plurality of data signals along the gate lines after pre-charging the pixel cells,

wherein the gate start pulse has the same width as that of the gate signals and is overlapped with a first one of the gate signals.

Claim 2 (Original): The method as claimed in claim 1, wherein the precharging step is carried out when the pixel cells on the preceding gate line charges the data signal.

Claim 3 (Original): The method as claimed in claim 1, wherein the precharging step is carried out at the time interval the same as the data signal charging step.

Claim 4 (Currently Amended): A method of driving a liquid crystal display panel using a 2-dot inversion system, the method comprising the steps of:

applying signals having a polarity inverted every two gate lines to a plurality of source lines on the liquid crystal display panel; and

applying a gate start pulse and a plurality of gate signals having a width of two horizontal synchronization intervals and overlapping each horizontal synchronization interval to each gate line on the liquid crystal display panel,

wherein the gate start pulse has the same width as that of the gate signals and is overlapped with a first one of the gate signals.

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Claim 5 (Currently Amended): A method of driving a liquid crystal display panel using a 2-dot inversion system, the method comprising the steps of:

receiving a gate start pulse and outputting gate signals;

allowing a plurality of pixel cells arranged on the liquid crystal display panel to cross a plurality of source lines and gate lines each other to charge a voltage stored in the pixel cell on the preceding gate line and a data signal on the source line in response to the gate signals; and

allowing the plurality of pixel cells to charge the data signal on the source line in response to the gate signals,

wherein the gate start pulse has the same width as the gate signals and is overlapped with a first one of the gate signals.

Claim 6 (Currently Amended) An apparatus for driving a liquid crystal display panel employing a 2-dot inversion system, comprising:

a liquid crystal panel having a plurality of pixel cells arranged to cross a plurality of source lines and gate lines each other;

a gate driver for applying a gate signal to each gate line such that pixel cells on the gate lines of the liquid crystal display panel sequentially charge data signals ~~to~~ on each source line along the gate lines; and

a dual gate start pulse generator ~~charging~~ pre-charging the pixel cells prior to ~~the charged~~ charging data signal signals ~~to~~ on the source line.

Claim 7 (Currently Amended): The apparatus as claimed in claim 6, wherein the ~~double gate shift~~ dual gate start pulse generator pre-charges the pixel cells when the pixel cell on the preceding gate line charges the data signal.

Claim 8 (Original): The apparatus as claimed in claim 7, wherein the dual gate start pulse generator allows the pixel cells to carry out the pre-charging in a time interval equal to an interval for charging the data signal.

Claim 9 (Currently Amended): An apparatus for driving a liquid crystal display panel employing a 2-dot inversion system, comprising:

a liquid crystal panel having a plurality of pixel cells arranged to cross a plurality of source lines and gate lines each other;

a data driver applying a data signal to each source line on the liquid crystal display panel to have a polarity inverted every two gate lines; ~~and~~

a gate driver applying ~~first~~ gate signals having a width of two horizontal synchronization interval and overlapping each horizontal synchronization interval to the gate lines on the liquid crystal display panel; and

a gate start pulse generating portion to output a gate start pulse to a gate driver, wherein the gate start pulse has the same width of the gate driver and is overlapped with a first one of the gate signals.

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Claim 10 (Original): The apparatus as claimed in claim 9, wherein the gate driver includes:

a gate driving integrated circuit chip applying a plurality of first gate signals to the gate lines, wherein the first gate signals have a width of one horizontal synchronization interval and sequentially enabled therein; and

a width controller connected to the gate driving integrated circuit chip and the gate lines and executing a logical operation of each of the first gate signals and each of second gate signals to be applied to the preceding gate line, thereby generating the first gate signals.
